

**Amendments to the Claims:**

The following is a complete list of claims indicating the changes incorporated by the present amendment and replacing all prior versions of the claims. Any claims canceled herein and all deletions made in claims that are not canceled herein are done so without prejudice to being re-instituted at a later date in this or a related application.

**What is claimed is:**

**Claims 1-20 (canceled)**

1 **Claim 21 (currently amended):** A method for generating hydrogen gas for combustion, the  
2 method comprising the steps of:

3 **(a) contacting reactants consisting of aluminum metal and an aqueous**  
4 **solution containing hydroxide ion at a temperature of approximately 180 degrees**  
5 **Fahrenheit by completely immersing said aluminum metal in said aqueous solution**  
6 **to generate hydrogen gas; and**

7 **(b) humidifying said hydrogen gas so generated**  
8 ~~transferring hydroxide solution at approximately 180 degrees Fahrenheit into a~~  
9 ~~gas-generating tank, wherein the gas-generating tank contains aluminum, and wherein the~~  
10 ~~transferred hydroxide solution completely covers the aluminum;~~  
11 ~~reacting the transferred hydroxide solution with the aluminum to generate~~  
12 ~~hydrogen gas;~~  
13 ~~humidifying the generated hydrogen gas by passing it through a water tank;~~  
14 ~~collecting the humidified hydrogen gas and delivering it to an application; and~~  
15 ~~transferring the hydroxide solution out of the gas-generating tank to stop the~~  
16 ~~reaction.~~

1 **Claim 22 (currently amended):** The method of claim 21, wherein step (a) is performed in a  
2 **hydrogen gas generation vessel, said method** further comprising **preheating said aqueous**

3 solution to said temperature in a holding vessel prior to step (a) and transferring said  
4 preheated solution to said hydrogen gas generation vessel by pressurizing said holding  
5 vessel ~~the steps of pressurizing a liquid holding tank containing the hydroxide solution at~~  
6 ~~approximately 180 degrees Fahrenheit; and transferring the hydroxide solution under pressure~~  
7 ~~into the gas generating tank.~~

1 **Claim 23 (currently amended):** . The method of claim 21, wherein step (a) is performed in a  
2 hydrogen gas generation vessel, said method further comprising preheating said aqueous  
3 solution to said temperature in a holding vessel prior to step (a), transferring said  
4 preheated solution to said hydrogen gas generation vessel by pressurizing said holding  
5 vessel, and removing said aqueous solution from said hydrogen gas generation vessel by  
6 pressurizing said hydrogen gas generation vessel ~~the steps of pressurizing the gas generating~~  
7 ~~tank containing the hydroxide solution at approximately 180 degrees Fahrenheit; and transferring~~  
8 ~~the hydroxide solution under pressure out of the gas generating tank.~~

1 **Claim 24 (currently amended):** The method of claim 21, further comprising the steps of  
2 collecting waste at the bottom of said hydrogen gas generation vessel ~~the gas generating tank;~~  
3 and periodically opening said hydrogen gas generating vessel ~~the gas generating tank~~ to  
4 replace said ~~the~~ aluminum metal and remove said ~~the~~ waste.

1 **Claim 25 (currently amended):** The method of claim 21, wherein said aqueous solution  
2 containing hydroxide ion is an aqueous ~~the hydroxide solution is~~ potassium hydroxide  
3 solution.

1 **Claim 26 (currently amended):** The method of claim 25, wherein said aqueous ~~the~~ potassium  
2 hydroxide solution is about 25% potassium hydroxide solution.

1 **Claim 27 (currently amended):** The method of claim 22, comprising pressurizing said  
2 holding vessel ~~wherein the liquid holding tank containing the hydroxide solution at~~  
3 ~~approximately 180 degrees Fahrenheit is pressurized by air.~~

1 **Claim 28 (currently amended):** The method of claim 22, wherein ~~said the liquid~~ holding  
2 ~~vessel tank containing the hydroxide solution at approximately 180 degrees Fahrenheit~~ holds  
3 approximately twelve gallons of said aqueous hydroxide solution.

1 ~~Claim 29 (canceled)~~

1 **Claim 30 (currently amended):** The method of claim 21, wherein step (b) comprises  
2 humidifying said the humidity of the humidified hydrogen gas to approximately is  
3 approximately 100% humidity.

1 **Claim 31 (currently amended):** The method of claim 21, further comprising powering  
2 ~~wherein the application is an engine~~ with said hydrogen gas so humidified for powering it.

1 **Claim 32 (currently amended):** The method of claim 21, further comprising powering  
2 ~~wherein the application is a fuel cell~~ with said hydrogen gas so humidified for powering it.

1 **Claim 33 (currently amended):** The method of claim 21, further comprising transferring  
2 said ~~wherein the humidified generated~~ hydrogen gas so humidified to is collected in the water  
3 ~~tank or a gas storage cylinder~~.

1 **Claim 34 (currently amended):** The method of claim 22 ~~claim 31~~, further comprising  
2 powering an engine with said hydrogen gas so humidified; ~~the steps of collecting the engine~~  
3 exhaust from said engine; ~~condensing the water from~~ said the engine exhaust; and returning the  
4 condensed water so condensed to said holding vessel ~~the liquid holding tank~~.

1 **Claim 35 (currently amended):** The method of claim 31, further comprising ~~the steps of~~  
2 collecting ~~the engine~~ exhaust from said engine, and condensing the water from said the engine  
3 exhaust for use; ~~and receiving the water from the condenser~~ as drinking water.

1 **Claim 36 (currently amended):** The method of claim 32, further comprising ~~the steps of~~  
2 ~~collecting the engine exhaust;~~ **condensing** ~~condensing the~~ water from said the fuel cell **for use;**  
3 ~~and receiving the water from the condenser~~ as drinking water.

1 **Claim 37 (canceled)**

1 **Claim 38 (currently amended):** The method of claim 21, wherein said the aluminum **metal** ~~in~~  
2 ~~the gas generating tank~~ comprises a plurality of ~~internal,~~ tubular, spaced-apart aluminum fuel  
3 tubes.

1 **Claim 39 (currently amended):** The method of claim 21, **further comprising emptying said**  
2 **hydrogen gas generation tank of said aqueous solution and recovering spent** ~~wherein the~~  
3 ~~hydroxide solution in the gas generating tank is emptied; and the reacted aluminum is collected~~  
4 as a dust or fine grained powder.

1 **Claim 40 (currently amended):** The method of claim 39, **further comprising recycling said**  
2 ~~wherein the reacted aluminum collected as a dust or fine grained powder is recycled.~~